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EXAMINER

PEUGH, BRIAN R

ART UNIT PAPER NUMBER

2187

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,100

Applicant(s)

MOCENIGO, JOHN M.

Examiner

Brian R. Peugh

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 3, 8, and 13 objected to because of the following informalities:

Claims 3 and 8 recite removing "the requested data from the n-dimensional space at the end of said predetermined period of time". Claim 13 recites removing "the requested data from the n-dimensional storage means at the end of said predetermined period of time". The Examiner would like to point out that according to page 6, lines 11-13 of Applicant's Specification, "a time-out trigger can be specified for clearing the channels so that a subsequent request will trigger a fresh data retrieval thereby providing a configurable window of currency for the retrieved data". The Specification details that a fresh request is needed in order to remove timed-out data, while the claims indicate that data is removed at the end of a predetermined amount of time. The Examiner will interpret the claim language according to specifically what is found within the claim.

Also, parent claims 1 and 6 recite "n-dimensional parameter space" in lines 7 and 8, respectively. The Examiner believes Claims 3 and 8 reference this space as an "n-dimensional space" in lines 3 and 2, respectively. The Applicant is encouraged to modify the claims in order to facilitate correct antecedent basis. The Examiner will interpret the claim language at this time according to this interpretation of the claimed subject language.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 9, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4, 9, and 14 recite the limitation "providing a parallel parameter space for providing error messaging to requestors". It is unclear to the Examiner as to what constitutes a "parallel parameter space". Page 6, lines 10-11 in the Specification recites, "A parallel parameter space provides a channel for error messaging to requestors". Further description of the "parallel parameter space" is not found in the Specification. Also, said phrase is not a commonly used term within the art, and searching for a meaning to said phrase has not resulted in a greater understanding of said phrase. It is also unclear to the Examiner how a 'space', here interpreted as a storage space of some type, can provide error messaging to requestors. If this 'space' is a storage space of some type, the space can only store the data, and would require a controller or the like to 'provide' the requestors with the error messaging. Applicant is encouraged to amend said phrase in claims 4, 9, and 14 in order to recite limitations with full support found within the Specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Berliner (US# 5,806,085).

Regarding claims 1, 6, and 11, Berliner teaches a system and method for file caching within a disk system. Berliner teaches that caching data from randomly selected files such as databases (col. 4, lines 22-25). A data request for data found on the CD-ROM drive is checked first to see if said requested data is found within the cache, where the claimed parameter could correspond to the block number of the request or request address (col. 5, lines 31-41). This cache check corresponds to the claimed step of determining previously requested accesses within an amount of time, where the amount of time corresponds to since the data item had been loaded into the cache. If a cache miss occurs for said request, the data is loaded from the CD-ROM file system into the cache (requested data had not been previously requested). The n-dimensional parameter space is interpreted as a cache, where a cache is notoriously well known to be highly configurable and contain at least one (n=1) row or column for data storage. A mini-database is used to identify data blocks within the cache which pertain to the file being cached, which is used to link the cache and CD-ROM file

system (col. 6, lines 2-10). The mini-database maps any randomly accessed block of data within the cached file and disk file system (col. 4, lines 25-33).

Specifically regarding claim 11, a processor (1) is shown that is incorporated within a larger client-server arrangement (col. 3, line 59 – col. 4, line 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5, 7, 10, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berliner (US# 5,806,085) and Singhal et al. (US# 6,148,300).

Berliner teaches that the mini-database can contain cache consistency information, such as time of last file update (col. 5, lines 55-63). The difference between the claimed subject matter and that of Berliner is that the claims recite that requestors are queued until an initial, or previous, request has concluded (claims 2, 7, and 12) and that if a previous request for the same data is currently being carried out, the current request is queued until the previous request has been completed (claims 5, 10, and 15). Singhal et al. teaches a data locking system. Singhal et al. teaches that if

a memory location is not locked, the requestor can acquire the lock associated with the requested data. If the location is currently locked when another request for the data at the location is made, the second requestor may wait until the memory location, and data, becomes available (col. 6, lines 13-22). Also, a queue is taught for holding subsequent requestors of a current memory location's piece of data (col. 6, lines 32-47). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of Berliner and Singhal et al. before him at the time the invention was made to modify the consistency scheme of Berliner to include the locking mechanism of Singhal et al., because then a system for further data consistency and coherency, leading to a greater chance of receiving the correct data upon request, could be achieved as taught by Singhal et al.

Claims 3, 8, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berliner (US# 5,806,085) and Bereznyi et al. (US# 6,449,695).

The difference between the claimed subject matter and that of Berliner, disclosed supra, is that the claims recite removing data from the n-dimensional space at the end of a predetermined amount of time. Bereznyi et al. teaches a cache controller for checking the time for which a data item has been stored within the cache. If the item has existed for a period of time greater than the time limit the data item is removed from the cache (col. 11, line 60 – col. 12, line 3). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of Berliner and Bereznyi et al. before him at the time the invention was made to modify the consistency scheme of Berliner to

include the time-based removal system of Bereznyi et al., because then a system for removing the least recently used data from a full cache could facilitate future data storage, as taught by Bereznyi et al.

Allowable Subject Matter

Claims 4, 9, and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art corresponds to a database and mapping system technique.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Peugh whose telephone number is 703-306-5843. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Friday's from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks, can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.



Brian R. Peugh
Patent Examiner
May 29, 2003